

LISTING OF CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

- Claim 1. **(currently amended)** A solid electrolyte battery comprising:
a positive electrode;
a negative electrode disposed opposite to said positive electrode;
a separator disposed between said positive electrode and said negative electrode; and
a solid electrolyte disposed between said positive electrode and said separator and between said separator and said negative electrode;
wherein said solid electrolyte comprises a mixture of a polymer and a swelling solvent present in a ratio of from 1:5 to 1:10;
wherein said separator comprises a polyolefin porous film having a thickness of from 5 μm to 15 μm and a volume porosity of from 25% to 60%;
wherein the impedance in said solid electrolyte battery is greater than the impedance realized at the room temperature when the temperature of said solid electrolyte battery is from 100°C to 160°C; and
wherein said solid electrolyte has a thickness of from 5 μm to 19 μm .
- Claim 2. (Previously presented) A solid electrolyte battery according to claim 1, wherein said porous polyolefin film contains polyethylene.
- Claim 3. (original) A solid electrolyte battery according to claim 1, wherein said solid electrolyte is a gel electrolyte containing swelling solvent.
- Claim 4. (original) A solid electrolyte battery according to claim 1, wherein said electrodes consist of a positive electrode using lithium ions as electrode reaction species and a negative electrode constituted by a carbonaceous material.
- Claim 5. (currently amended) A solid electrolyte battery according to claim 3, wherein said solid electrolyte is a gel electrolyte containing ethylene carbonate, propylene carbonate and LiPF_6 .

Claim 6. (previously presented) A solid electrolyte battery according to claim 5, wherein said solid electrolyte is a gel electrolyte further containing vinylene carbonate and/or 2,4-difluoroanisol.

Claim 7. (previously presented) A solid electrolyte battery according to claim 6, wherein the content of each of vinylene carbonate and 2,4-difluoroanisol is not greater than 5 wt% of the overall weight of said electrolyte.

Claim 8. (original) A solid electrolyte battery according to claim 7, wherein a gel electrolyte is employed which is constituted by polyvinylidene fluoride or a copolymer of polyvinylidene fluoride.

Claim 9. (currently amended) A solid electrolyte battery according to claim 8, wherein a polymer is used which contains polyvinylidene fluoride and polyhexafluoropropylene.

Claim 10. (currently amended) A solid electrolyte battery according to claim 9, wherein said gel electrolyte is composed of a copolymer constituted by polyvinylidene fluoride and polyhexafluoropropylene such that polyhexafluoropropylene is contained in a quantity greater than 8 wt%.

Claims 11-38. (canceled)

Claim 39. (new) A solid electrolyte battery comprising:

a positive electrode comprising a lithium ion as an electrode reaction species;

a negative electrode, disposed opposite to said positive electrode, said negative electrode comprising a carbonaceous material;

a separator, disposed between said positive electrode and said negative electrode, said separator comprising a polyolefin porous film having a thickness of from 5 μm to 15 μm and a volume porosity of from 25% to 60%; and

a solid electrolyte, with a thickness of from 5 μm to 19 μm , disposed between said positive electrode and said separator and between said separator and said negative electrode, said solid electrolyte comprising (a) an electrolyte salt comprising LiPF_6 ; (b) a matrix polymer comprising at least one compound selected from the group consisting of polyvinylidene fluoride and polyhexafluoropropylene; and (c) a swelling solvent, present at a ratio of matrix polymer to swelling solvent of 1:5 to 1:10, said swelling solvent comprising (i) at least one compound selected from the group consisting of ethylene carbonate, propylene carbonate, and γ -butyrolactone and (ii) vinylene carbonate and/or 2,4-difluoroanisole present at not greater than 5 wt% of the overall weight of said electrolyte;

wherein the impedance in said solid electrolyte battery is greater than the impedance realized at the room temperature when the temperature of said solid electrolyte battery is from 100°C to 160°C.